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10/689,428

10/20/2003

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EXAMINER

KUMAR, SRILAKSHMI K

ART UNIT

PAPER NUMBER

2629

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/689,428

Applicant(s)

THIELEMANS ET AL.

Examiner

Srilakshmi K. Kumar

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/17/2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

The following office action is in response to the amendment filed on October 13, 2006. Claims 1-12 are pending. Claims 1 and 12 are amended.

Drawings

1. The drawings were received on October 13, 2006. These drawings are acceptable.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. *Claims 1, 2, and 4-12* are rejected under 35 U.S.C. 103(a) as being unpatentable over Eller et al. (U.S. Patent Application No. 2006/0050012) in view of Lacayo et al. (U.S. Patent Application No. 2003/0210240) in further view of Comiskey et al (US 6,473,072)

With reference to **claims 1 and 12**, Eller et al. teaches an electronic display system comprising: at least one electronic display apparatus (200), a display driver circuit (see paragraph

Art Unit: 2629

21); a storage means to store locally to the at least one electronic display apparatus a content of at least one image to be displayed on the at least one electronic display device (see paragraph 21); transferring means for transferring the content of the at least one image from the local storage means to the display driver circuit for displaying the at least one image on the electronic display device, and a connecting means to connect the electronic display system to a network central processor (see paragraphs 21 and 30-31); receiving from a network central processor at least one image to be displayed on the electronic display device and storing in the storage means local to the electronic display the at least one image to be displayed on the display received from the network central processor (see paragraph 21).

While teaching all that is explained above Eller et al. fails to specifically teach that the at least one electronic display apparatus comprises an electronic non-volatile display device which is able to retain an image after power is switched off as recited in the claim.

Lacayo et al. teaches the usage of an electronic display apparatus (204), which comprises an electronic non-volatile display device which is able to retain an image after power is switched off (see paragraph 19).

Therefore it would have been obvious to allow the usage of a non-volatile display device similar to that which is taught by Lacayo et al. in a billboard apparatus similar to that which is taught by Eller et al. in order to thereby provide a billboard apparatus having an electronic display which is capable of retaining an image when powering of the drivers is turned off thereby providing a reduction of power.

Eller et al and Lacayo et al fail to teach whereby the display device has the form of an endless loop and the displayed image is composed by a certain number of pixels, and also, fail to

Art Unit: 2629

teach where the display system comprises a printhead, fed by the driver circuit and including a plurality of electrodes arranged in one or more rows, whereby the number of electrodes is lower than said number of pixels. Comiskey et al teaches a electrophoretic display device, wherein the display device has the form of an endless loop and the displayed image is composed by a certain number of pixels (Fig. 12b, col. 14, lines 42-56). Comiskey et al also teaches a printhead system fed by the driver circuit (Fig. 12b, item 121). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the display as an endless loop with a printhead as disclosed by Comiskey et al into the billboard display system of Eller et al as the Comiskey et al system enables the user to change displayed images repeatedly (col. 1, lines 16-39 and col. 3, lines 15-25).

With reference to **claim 2**, while Eller et al. fails to specifically teach the usage of a power supply the examiner takes ^{the position} ~~the position~~ that the usage of a power supply is an inherent function of an electronic billboard device.

With reference to **claim 4**, Eller et al. teaches that the network central processor is a server that provides dynamic content to the at least one electronic non-volatile display device (see paragraph 29).

With reference to **claims 5-7**, Eller et al. teaches a means to connect the at least one display apparatus to a network central processor comprises a wired or wireless connection through the receive and transmit unit (see paragraph 30-31).

With reference to **claims 8 and 9**, while Eller et al. teaches all that is required as explained above there fails to be any disclosure of a electronic non-volatile display device comprising passive display material, wherein the passive display material comprises of

Art Unit: 2629

electrophoretic materials, electrochromic materials, cholesteric and nematic bistable LCD materials or bichromal bead materials.

Lacayo et al. teaches the usage of an electronic non-volatile display device (204) comprising a passive display material wherein the passive display material comprises bichromal bead material (see paragraph 19).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to allow the usage of a display device similar to that which is taught by Lacayo et al. to be used in a device similar to that which is taught by Eller et al. in order to thereby provide an electronic billboard device which is capable of retaining the displayed image when the power supply has been shut-off in order to reduce power consumption of the billboard device.

With reference to **claim 10**, Eller et al. teaches that the means for storing locally to the at least one electronic display apparatus keeps the storage of the at least one image after loss of connection to the network central processor (see paragraph 29).

With reference to **claim 11**, Eller et al. teaches that the display system is used for outdoor advertising (see paragraph 19).

5. **Claim 3** is rejected under 35 U.S.C. 103(a) as being unpatentable over Eller et al in view of Lacayo et al and Comisky et al as applied to **claims 1, 2 and 4-12** above, and further in view of Poliakine (US-PGPUB 2003/0146891).

With reference to **claim 3**, while Eller et al. and Lacayo et al. teach all that is required as explained above, there fails to be any teaching of a diagnostics unit for sensing health conditions of the at least one electronic display apparatus and for transmitting a signal representative of the sensed health condition to the network central processor.

Art Unit: 2629

Poliakine teaches the usage of a diagnostics unit (30) for sensing health conditions of the at least one electronic display apparatus (10) and for transmitting a signal representative of the sensed health condition to the network central processor (14) (see paragraph 52).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to allow the usage of a sensor similar to that which is taught by Poliakine in a electronic display device similar to that which is taught by the combination of Eller et al. and Lacayo et al. in order to thereby provide a display device which is capable of detecting changes in temperature of the display device in order to make the necessary adjustment to provide for optimum driving of the display.

Response to Arguments

6. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Srilakshmi K. Kumar whose telephone number is 571 272 7769. The examiner can normally be reached on 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sue Lefkowitz can be reached on 571 272 3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2629

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Srilakshmi K Kumar
Examiner
Art Unit 2629

SKK
May 15, 2007



SUMATI LEFKOWITZ
SUPERVISORY PATENT EXAMINER